The Effect of Competency, Organizational Commitment, Work Environment, and Motivation on Employee Productivity

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Abstract

The purpose of this research is to examine the connection between productivity and competence, organizational commitment, and the work environment, and to determine how work motivation moderates this relationship. A quantitative explanatory technique was used to conduct the study at PT XYZ in Bengkulu. With the use of purposive sample and proportionate stratification by division and work shift, 168 out of 287 operational personnel were chosen to participate in the survey. PLS-SEM using SmartPLS 4 was used to evaluate data received from a structured questionnaire that used a Likert scale. There is no statistically significant relationship between factor (X1), factor (X2), or factor (X3) and productivity, according to the data. In contrast, there is a positive and statistically significant relationship between intrinsic drive at work and output. Furthermore, the correlation between factor (X1) and productivity is moderated by factor (Z), as is the correlation between factor (X3) and productivity. This means that when employees are highly motivated, a good factor (X3) and competent workers are more likely to result in increased productivity. On the other hand, the correlation between factor (X2) and productivity is unmodified by job motivation. A total of 26.7% of the variation in productivity across workers is explained by the model. In the context of car production, these results emphasize the importance of intrinsic motivation in maximizing the impact of both human and environmental factors on productivity.

Keywords: *Competence, Organizational Commitment, Work Environment, Employee Productivity, Work Motivation.*

A. INTRODUCTION

When it comes to Indonesia's GDP, employment, exports, and state tax income, the car industry is right up there as a key player. More than 1.5 million people were directly or indirectly employed by the automotive industry in 2023, with the sector contributing around 19.2% to the overall GDP of the manufacturing sector, according to data from the RI Department of Business (2023). Additionally, in 2023, Indonesian motor vehicle manufacturing reached 1.37 million units, according to the GAIKINDO. Nevertheless, there are still obstacles to the industry's development, including global pressures, the need to improve HR quality, and cost efficiency (Gabungan Factory Kendaraan Bermotor Indonesia, 2024). Because it has a direct bearing on production efficacy, job quality, and organizational competitiveness, staff productivity remains a pivotal part in shaping the performance of motor industries in this context (Sedarmayanti, 2020).

In this regard, the productivity of PT XYZ, a Bengkulu-based company, has dropped dramatically over the previous three years. According to data collected from within the organization, productivity fell from 87% in 2022 to 83% in 2023 and 79% in

2024. The company's aim is 95%, therefore this falls far short. Production goals have been postponed, operating expenses have risen, and supply chain effectiveness has diminished as a consequence of this productivity slump. This trend points to problems in HRs that affect not only technical factor (X1) but also more intangible factors like employee dedication, morale, and satisfaction with their factor (X3).

There are six key aspects that affect productivity on the job, as outlined by Sink (1985): speed, value, creativity, earnings, quality of life at work, and impact. Organizational factors, setting for work, behavior, ambition, and technical skills are all contributors to HR productivity, according to Sedarmayanti (2020). Interactions between individual skills, effort, and business support are what lead to productivity, according to Robbins and Judge (2022). This means that technical training is not the only solution to PT XYZ's falling productivity; the company also has to concentrate on boosting workers' motivation, factor (X1), dedication, and factor (X3).

Employee factor (X1) is a fundamental factor in determining job success. Spencer & Spencer (2021) define factor (X1) as a basic individual characteristic related to effective performance in the workplace. Research synthesis shows that factor (X1) is a dominant factor in increasing factor (Y) and performance. factor (X2) is also a crucial factor in supporting productivity. Allen & Meyer (2017) define commitment as an emotional attachment, normative obligation, and the need to remain with the organization.

The work atmosphere is just as important as expertise and dedication. According to Sedarmayanti (2020), workers are more likely to be focused, safe, and productive in a workplace that meets their needs for comfort, safety, and support. Workplace conditions positively affect productivity, according to several studies. factor (Z) is another critical component. Employees' efforts to accomplish organizational objectives may be impacted by both inner and external determinants of motivation, as Herzberg et al. (1959) recognized. Employees' intrinsic motivation has a direct impact on their output on the job (Alqorni et al., 2025), and research also shows that intrinsic motivation at work moderates the association between other organizational factors and output.

The impact of ability and teamwork on staff efficiency has been the subject of contradictory results in prior studies. Evidence suggests a strong impact in certain studies (Hardjowikarto et al., 2023), while conflicting findings on mediating and moderating factors have been reported in other research (Zhao et al., 2025). In addition, few empirical investigations have analyzed the connection occurring among factor (X1), business loyalty, factor (X3), and motivation all at once; this is particularly true in Bengkulu's automotive establishment. There is a lack of theoretical and empirical study on this condition, particularly with the moderating factor of job motivation. To address this knowledge vacuum, the following research is necessary within the framework of Bengkulu's automotive industry: “The Effect of Competence, Organizational Commitment, and Work Environment on Employee Productivity with Work Motivation as a Moderating Factor (Study on Employees of PT XYZ in Bengkulu).”

B. LITERATURE REVIEW

1. Grand Theory

The English phrase "to manage" has its origins in the Italian word "maneggio" and the Latin word "manus," which means hand. Thus, management is fundamentally the process of organizing or leading. But no one definition of this idea has emerged as of yet (Prihanti et al., 2022). Management philosophy that centers on people, or HRM, or HRM, is a cornerstone of every successful business. A company's ability to meet its immediate and distant objectives is directly related to its HRs, which are considered both a production component and a strategic asset. According to Dessler, HRM is a systematic approach to recruiting, hiring, training, and keeping employees so that they can provide their all for the company. Hasibuan defines HRM as being "the science and art of successfully and efficiently managing relationships and the responsibilities of the workforce to meet the objectives of the firm, workers, and society" (Sudaryo et al., 2019).

HRM theory has progressed in tandem with management theory. The early 1900s scientific management theory by Frederick W. Taylor, stressed the need of tight monitoring and the division of labor as means to maximize productivity. But it was subsequently argued that this method failed to take human psychology into account. In response, Elton Mayo spearheaded the Human Relations Movement with the Hawthorne experiments, which proved that focusing on social needs, communication, and the workplace environment greatly increased productivity. As a result of this change, HRM is now more strategically focused and less mechanized.

2. Competence (X1)

When it comes to HRM, the idea of factor (X1) was first put forward by McClelland (1973). He stressed that there are other personal traits than IQ and education level that are more predictive of success on the job. According to Spencer and Spencer (2021), factor (X1) is a core personal quality that includes the following: reasons for doing well, personality attributes, self-concept, knowledge, and abilities. A person's attitude, morals, and actions are just as important as their technical abilities when it comes to demonstrating factor (X1). Competency, according to this point of view, is the capacity to consistently carry out duties in accordance with standards and the integration of knowledge, abilities, and attitudes as seen in observable work behavior (Wibowo, 2020; Armstrong & Taylor, 2020). Competency, according to Boyatzis (2008), represents the balanced product of a subject's inherent strengths versus their professional obligations inside the particular boundaries of the corporate entity.

Competencies are categorized by five primary elements, according to Spencer & Spencer (2021): goals, characteristics, self-perception, information, and abilities. To sum up, factor (X1) are associated with both an individual's knowledge and their performance on the job. Workforce planning, hiring, training, and performance reviews are all aspects of HRM that are based on factor (X1) (Hutapea & Thoha, 2008). By adopting a competency-based strategy, companies can set clear goals for employee

performance, match people with suitable roles, and boost efficiency and output on the job.

3. Organizational Commitment (X2)

Employees' levels of factor (X2) are strong predictors of their job behavior, loyalty, and retention intentions. According to Becker's (1960) side-bet hypothesis, which argues that people stay because they have an investment that would be lost if they left the company, this idea was first offered. Afterwards, the idea of cultural dedication was refined by Meyer & Allen (1991) into three key components: affective, continuation, and normative commitment. These components are still often used to describe the emotional investment that workers have in their company. Lothans et al. (2021) stress that commitment includes emotional investment, acceptance of organizational principles, and a readiness to actively participate; Robbins & Judge (2022) A worker's self-concept and intent to remain within the corporate entity is reflected in their factor (X2), which is a psychological condition.

The three categories of organizational commitment defined by Meyer and Allen (1991) are affective dedication (the desire to remain), continuation commitment (the consideration of costs and needs), and typical dedication (the consideration of moral responsibility). Collectively, these three types of commitment affect workers' intentions to stay, output, and conduct on the job. Policies for employee retention, evaluations of performance, and advancement opportunities are all rooted on HRM principles that prioritize corporate commitment. Organizational stability, reduced absenteeism and turnover, enhanced productivity, and positive work relationships are all outcomes of highly committed employees, according to Mathis & Jackson (2020).

4. Work Environment (X3)

Physical and social-organizational factors that are present during work and have an impact on workers are collectively referred to as the factor (X3). The factor (X3) affects employee performance and results, even when it is not directly engaged in the production process (Daniyati et al., 2022). The term “factor (X3)” is used in management studies to describe both the physical aspects of an office, such as the lighting, temperature, and noise levels, and the social aspects, such as the atmosphere that encourages teamwork, open dialogue, and participation in daily tasks (Armstrong & Taylor, 2020). Both the ergonomics and organizational behavior schools of thought agree that a good factor (X3) is shaped by elements such as fairness, supervisor support, and the compatibility of employees with their factor (X3) s.

There are two broad categories that describe the workplace: physical and non-physical. The non-physical environment consists of things like relationships between superiors and subordinates, clarity of roles, organizational support, communication patterns, and air and light quality as well as temperature, noise, and illumination in the workplace. When it comes to lowering psychological burden and improving work engagement, this concept is in line with the job demands resources approach, which

holds that physical and social circumstances are essential resources (Bakker & Demerouti, 2007). Systematically created and assessed using scientifically validated indicators, factor (X3) management serves a strategic purpose from the viewpoint of HRM by enhancing work effectiveness, coordination, and employee well-being.

5. Work Motivation (Z)

In order to accomplish organizational objectives, workers need to be motivated, which may come from inside or from outside the company (Zulkarnaen, 2024). Conceptually expressed in the dimensions of direction, intensity, and persistence, inspiration explains one's behavioral choices, effort strength, and persistence from the viewpoint of organizational behavior (Robbins & Judge, 2022). Administration views inspiration as the process by which work design, individual requirements, and incentives are all in harmony with one another, leading to peak performance in the face of sufficient opportunity, resources, and feedback (Luthfi & Wijaya, 2024).

Many psychological and organizational elements combine to produce motivation, according to modern ideas. expectation theory indicates that effort is impacted by expectation, instrumentality, and reward valence (Vroom, 1964), while two-factor theory highlights the importance of motivators in increasing job engagement and hygiene factors in reducing unhappiness (Herzberg et al., 1959). According to decision and Ryan (2000), the theory of self-determination differentiates between intrinsic and extrinsic motivation with respect to the satisfaction of requirements for autonomy, factor (X1), and social connectivity. Compensation policies, job design, and incentive systems are all aspects of HRM that are shaped by motivation. As a result, more mental energy is directed into productive work behavior, which in turn serves to reduce the gap between standard and real performance (Jaya, 2024).

6. Employee Productivity (Y)

The combining of economy and quality in job execution is reflected in factor (Y), meaning the proportion of yield relative to used production inputs (Drucker, 2012). Productivity, as used in performance management, takes into account not only the amount of work done but also its quality, timeliness, and efficiency in using resources to accomplish set objectives (Sink & Tuttle, 1989). From this vantage point, efficiency is all about making the most of what we have, whereas effectiveness is about measuring how well we reach our objectives. Employees' real contributions are shown by their productivity, which is defined as the production that is observable, timely, and standardized (Drucker, 2007).

To connect corporate objectives to day-to-day work behavior, HRM techniques use productivity as a primary performance measure. Measurable goals, enough resources, well-planned workloads, and consistent feedback are all part of its administration. Robbins and Judge (2020) include leadership, business assistance, and job design as elements that impact this. The operational definition of productivity is the amount, quality, and timeliness of work production with acceptable usage of

resources. According to Istiqomah and Suji'ah (2024), One definition of productivity is a composite indicator that measures both the outcomes and the processes of an organization's work in tandem. Timeliness, quality of work, efficiency of facilities, and attainment of goals are the operationalization of productivity.

C. METHOD

A quantitative technique based on a causal associative approach was used in this investigation. The selection of this quantitative approach was based on its emphasis on statistically processing numerical data to investigate the interrelationships of factors, with the goal of verifying hypotheses developed from prior study and theory (Sugiyono, 2021). Since the goals of the research were to establish relationships between factors and to investigate potential causal relationships between the independent and dependent factors, the causal associative technique was used. Creswell (2019) states that the purpose of causal analysis is to determine the impact of independent factors on the dependent factor, both directly and indirectly. This kind of study also permits the use of moderating factors to enhance or diminish the correlation between factors. The research aims and hypotheses were tested and answered via a staged examination of the evidence in this inquiry. Utilizing PLS-SEM via the SmartPLS 4 software, we performed descriptive and inferential statistics. (According to Ghozali, 2019).

D. RESULT AND DISCUSSION

1. Convergent Validity Test

The calculated loading factor values for the factor (X1), teamwork, job ecology, ambition, and staff productivity factors are all over 0.70, suggesting that the indicators do a good job of representing the latent dimensions. As long as it is near to the criterion and still provides a sufficient contribution, a loading value of 0.690 slightly below the optimal limit for one factor (X1) indicator is still acceptable. With no need to remove indicators, the convergent validity requirements based on loading factors were satisfied by all of the applied indicators.

factor (Y) was 0.942, business engagement was 0.816, factor (X1) was 0.709, factor (X3) was 0.822, motivation was 0.832, and the AVE test findings revealed that all constructs had AVE values above 0.50. These numbers show that the latent constructs account for almost half of the indicator variation. The analysis instrument has high assessment quality, since all factors in this study passed the convergent validity requirements.

Table 1. Results of the AVE Validity Test

	Average Variance Extracted (AVE)
Organizational Commitment	0.816
Competence	0.709
Work Environment	0.822
Motivation	0.832
Productivity	0.942

2. Discriminant Validity Test

The table below presents findings the results of the Fornell-Larcker Criterion Validity Test:

Table 2. Results of the Fornell-Larcker Criterion Validity Test

	Organizational Commitment	Competence	Work Environment	Motivation	Productivity
Organizational Commitment	0.903				
Competence	0.369	0.842			
Work Environment	0.317	0.268	0.906		
Motivation	0.264	0.328	0.286	0.912	
Productivity	-0.077	0.086	-0.042	0.162	0.970

Results from tests of discriminant validity according to the Fornell Larcker criteria (Table 2) reveal that, for all structures, the square root of the AVE exceeds its correlations with all remaining latent variables. Business commitment, for instance, has a greater square root of the AVE (0.903) than its associations with skills, work surroundings, inspiration, and productivity. factor (X1) (0.842), factor (X3) (0.906), motivation (0.912), and productivity (0.970) follow a similar trend; all four constructs' values are higher than the inter-construct correlation values, which means that discriminant validity has been satisfied.

With no HTMT values within constructs over the 0.90 cutoff, the findings of the HTMT test provide further evidence of discriminant validity. There is no quantitative overlap across latent factors since the HTMT values for both the major constructs and the interaction constructs are within a modest range. There is enough clarity between the model's constructs for the research instrument to pass the discriminant validity test.

3. Construct Reliability Test

The indicators inside a construct can only provide consistent and dependable measurements if the construct reliability tests show that each hidden factor has acceptable internal consistency. When both Cronbach's Alpha (CA) and Composite Reliability (CR) values are more than 0.70, we say that a construct is reliable; values between 0.80 and 0.90 suggest that it is extremely reliable.

Table 3. Cronbach's Alpha Reliability Test Results

	Cronbach's alpha
Organizational Commitment	0.967
Competence	0.932
Work Environment	0.966
Motivation	0.966
Productivity	0.991

Table 3 as shown that factor (X2) (0.967), factor (X1) (0.932), factor (X3) (0.966), motivation (0.966), and staff productivity (0.991) all have CA values much greater than the minimal limit of 0.70. The research instrument may be deemed trustworthy according to CA criteria, since these values imply extremely a high level of internal.

Table 4. Composite Reliability Test Results

	Composite reliability (rho_c)
Organizational Commitment	0.969
Competence	0.944
Work Environment	0.970
Motivation	0.972
Productivity	0.992

Table 4 shows the results of the CR tests, which further support the conclusions of construct dependability. CR values for factor (X1) (0.944), factor (X3) (0.970), motivation (0.972), and staff productivity (0.992) are all rather high. All of these numbers are higher than 0.70 and several of them are close to or even higher than 0.95, which means that the model's latent factors are quite reliable when measured.

4. Coefficient of Determination (R^2)

The following table is the result of the Coefficient of Determination test:

Table 5. Results of the Determination Coefficient Test

	R-square	R-square adjusted
Productivity	0.267	0.235

Table 5 shows that proficiency, business commitment, working conditions, inspiration at work, and the interaction of motivation with these three factors account for 26.7% of the variance in productivity, with a R^2 value of 0.267 and a R^2 of 0.235 for the factor (Y) factor. Elements not covered within this investigation's range, like organizational rules, compensation structures, leadership styles, and other personal factors not included, account for 73.3% of the remaining variance.

5. Goodness of Fit (GoF)

To evaluate the structural model's comprehensive representation of the actual data, a GOF test was carried out. Several indicators are used to evaluate the model fit in PLS-SEM. Also, the GoF index from Tenenhaus et al. (2005) was used as an overall metric for assessing the measurement and structural model quality; the GoF categories were small (≥ 0.10), moderate (≥ 0.25), and big (≥ 0.36).

Table 6. Goodness of Fit (GoF) Test Results

	Saturated model	Estimated model
SRMR	0.043	0.043
d_ULS	1.230	1.240
d_G	0.882	0.920
Chi-square	761.436	831.110
NFI	0.913	0.905

Both the observed and estimated SRMR values are 0.043, which is much lower than the cutoff value of 0.08 (Table 6), suggesting a high degree of model fit between the empirical and projected covariances. On top of that, the d_ULS (1.230 and 1.240) and d_G (0.882 and 0.920) values for both models are rather similar, suggesting that the estimated model is adequately well-fit and does not substantially differ from the saturated model.

6. Hypothesis Testing

At a 95% confidence level, we tested our hypotheses to see whether there was a statistically significant relationship between the independent factors' direct effects on productivity and the connection (moderation) effect of factor (Z). A bootstrapping process with 5,000 subsamples was used to obtain the path coefficient (original sample), t-statistic, and p-value, which were then used to examine the data. Should the t-statistic reach 1.96 and the p-value fall below 0.05, the hypothesis is supported; if not, it is dismissed.

Table 7. Hypothesis Test Results

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Organizational Commitment -> Productivity	-0.105	-0.092	0.120	0.876	0.381
Competence -> Productivity	0.066	0.070	0.104	0.637	0.524
Work Environment -> Productivity	-0.086	-0.077	0.112	0.771	0.441
Motivation -> Productivity	0.202	0.201	0.086	2.357	0.018
Motivation x Organizational Commitment -> Productivity	0.157	0.158	0.087	1.819	0.069
Motivation x Competence -> Productivity	0.216	0.190	0.092	2.352	0.019
Motivation x Work Environment -> Productivity	0.279	0.257	0.090	3.117	0.002

The impact is not significant since the t-statistic falls below 1.96 and the p-value exceeds 0.05, as shown by the path coefficient of factor (X1) on productivity being 0.066, a t-statistic of 0.637, and a p-value of 0.524. For this reason, we can rule out H_1. This result suggests that the study's observed improvement in staff factor (X1) had no discernible effect on production. With a t-statistic of 0.876 and a p-value of 0.381, the test findings reveal that there is no significant influence of factor (X2) on productivity (coefficient = -0.105). Hence, we can rule out H_2. There is no empirical evidence that

shows a correlation between employee loyalty and dedication and higher levels of productivity on the job.

A t-statistic of 0.771 and a p-value of 0.441 indicate that the impact of the factor (X3) on productivity is not statistically significant; the path coefficient is -0.086. This leads us to reject H3 as well. According to these findings, the current factor (X3) lacks a sufficiently significant immediate effect on boosting factor (Y).

A substantial moderating impact is shown by the test findings, which reveal an interaction coefficient of 0.216, a t-statistic of 2.352, and a p-value of 0.019. Consequently, H3 is agreed upon. Employee competency has a greater impact on enhancing productivity when accompanied by high levels of factor (Z), as this research suggests that factor (Z) enhances the link between factor (X1) and productivity.

The lack of significance in the moderating effect is supported by the Motivation × factor (X2) interaction coefficient of 0.157, t-statistic of 1.819, and p-value of 0.069. Hence, we can exclude out H_5. It may be inferred from this that the correlation between business within an organization and staff efficiency is unmodified by job incentive.

With a high degree of confidence, the impact factor of 0.279, t-statistic of 3.117, and p-value of 0.002 for the Motivation × factor (X3) interaction indicate a significant moderating influence. Therefore, we accept H_6. A productive factor (X3) will have an even bigger effect on productivity when workers are highly motivated, as this discovery proves that factor (Z) amplifies the effect of the factor (X3) on productivity.

7. There Is a Positive Impact from the interaction From Competence and Productivity

Competency, in theory, is defined as the set of traits shared by an individual throughout their time at work that allow them to carry out their responsibilities with ease and success, leading to increased output. According to this study's theoretical framework, factor (X1) is the bedrock of HR quality that would propel higher production and better operational performance for businesses.

Nonetheless, outcomes from the PLS-SEM analysis indicate that there is no significant influence at the 5% level, as the path coefficient between factor (X1) and productivity is $\beta = 0.066$, with a t-statistic of 0.637 and a p-value of 0.524. As a result, we can not accept the claim that expertise increases production. This conclusion implies that PT XYZ Bengkulu's employees' high levels of factor (X1) have not immediately translated into higher levels of productivity. This might be because there is a very small range of competencies or because other factors have a more significant impact on productivity in the workplace.

8. Organizational Commitment and Productivity: A Positively Influencing Interaction

In theory, an employee's factor (X2) shows up as their emotional investment in the company, which shows up as their desire to remain, their willingness to exceed

standard expectations, and their alignment with the corporate purpose and core principles. High levels of factor (X2) correlate with increased degrees of consistency and willingness to maintain performance quality and quantity, according to the theoretical framework of this research. Consequently, factor (X2) is believed to have a favorable influence on productivity.

A t-statistic of 0.876 and a p-value of 0.381 indicate that the path coefficient of factor (X2) on production is β = -0.105, which is not statistically significant, according to the PLS-SEM test findings. As a result, we can not accept the idea that factor (X2) boosts productivity. Employees' perceptions of their own commitment to the organization reflect their emotional investment in and stability within the job, while structural factors like work systems, production capacity, and incentive mechanisms have a more significant impact on actual productivity variations within PT XYZ Bengkulu.

9. There Is a Positive Correlation Between the Workplace and Productivity

Layout, lighting, temperature, cleanliness, noise, and the quality of work relationships are all aspects of the physical and non-physical circumstances that surround workers while they carry out their jobs. When we talk about the factor (X3), we are talking about a broad concept. People are more likely to focus and get along well at work if they feel secure and comfortable doing so. Consequently, the study's theoretical framework postulates that a conducive work atmosphere boosts productivity.

The PLS-SEM test findings show that there is no significant influence at the 5% level, as the path factor between the factor (X3) and productivity is β = -0.086 with a t-statistic of 0.771 and a p-value of 0.441. Consequently, it appears the idea that a pleasant workplace boosts productivity is untenable. Based on these results, it seems that at PT XYZ Bengkulu, factors like operational standards, individual traits, and target systems have a greater impact on productivity than do employees' views of their factor (X3). This is because the workplace is primarily concerned with ensuring employees' basic comfort and well-being.

10. Which Competence Mediates the Association from Work Motivation and Productivity

Competency, in theory, is an employee's ability to do their job well; motivation, on the other hand, is the inner drive that initiates and maintains actions that contribute to the achievement of corporate objectives. When it comes to interactions, having a high level of proficiency is not enough to guarantee peak productivity; intrinsic drive at work is also crucial. Thus, as a moderating factor, motivation is thought to enhance the link between factor (X1) and productivity.

Given the 0.216 β coefficient, 2.352 t-statistic, and the 0.019 p-value recorded, the PLS-SEM test shows that factor (Z) and factor (X1) interact positively and significantly to impact productivity. It has been shown that intrinsic drive at work both mitigates and amplifies the effect of factor (X1) on output, as this value suggests.

Importantly, these results show that PT XYZ Bengkulu's employees are most productive when they are highly motivated to do their jobs well. factor (X1), therefore, serves as potential, and drive, as the engine that propels actual performance, is what really matters.

11. Work-Related Motivation, Organizational Dedication, and Outcomes

The research found no statistically significant association between factor (X2) and job motivation and productivity. According to the evidence, the factor (Z) moderation hypothesis cannot be supported, since the path coefficient for the effect of motivation and factor (X2) on productivity is 0.157, t-statistic is 1.819, and p-value is 0.069. Employees' degrees of factor (X2) have a substantial impact on their productivity, regardless of their level of intrinsic desire.

factor (X2) and job motivation are not always factors that reinforce one other, but rather operate independently as predictors, according to this result. As a result of operational aims and procedural expectations, the moderating mechanism of factor (Z) becomes less important in a structured work system, where the influence of commitment on productivity is more or less constant.

12. The Role of Work Environment in Mediating the Association from Work Motivation and Productivity

In theory, the term “factor (X3)” refers to the sum of all the physical and psychological factors that workers encounter on the job, including things like office design, cleanliness, lighting, temperature, noise level, and the nature of the connections that workers have with coworkers. It is thought that a pleasant setting promotes ease and teamwork, which in turn may increase output, particularly in the presence of intrinsic desire to do one's best job. Based on an interactional paradigm, the factor (Z) moderation hypothesis states that highly motivated people are more susceptible to the impact of their factor (X3) on their productivity.

The β coefficient is 0.279, t-statistic is 3.117, and p-value is 0.002, according to the PLS-SEM test, which shows that factor (Z) and the factor (X3) interact positively and significantly to affect productivity. This discovery proves that intrinsic motivation at work mediates the connection between workplace factors and output. Productivity variances at PT XYZ Bengkulu cannot be explained by a consistent factor (X3), although highly motivated individuals are better equipped to make the most of a supportive workplace. These findings underscore the need of systematically promoting factor (Z) alongside attempts to improve the factor (X3). Only then can the promise of the factor (X3) be translated into greater productivity, both in the academic and practical realms.

E. CONCLUSION

The data analysis and discussion surrounding the research objectives and problem formulation led to the conclusion that workers' factor (X1), factor (X2), and factor (X3) do not significantly impact their productivity at PT XYZ in Bengkulu.

Consequently, these three factors cannot be used to directly explain variations in factor (Y) levels. There has been no discernible uptick in performance as a result of increased factor (X1) and organizational dedication, and workplace factors are more often seen as necessary but secondary in determining output. While factor (X1) and factor (X3) can have a favorable and considerable impact on factor (Y), research reveal that factor (Z) may function as a moderating factor, amplifying this effect. factor (Z), on the other hand, does not operate as a moderator in the link between factor (X2) and productivity, therefore varying degrees of motivation do not appreciably alter the relationship between the two factors. According to these results, a highly motivated workforce will achieve its full potential in an atmosphere that rewards factor (X1) and professionalism.

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